

METHOD AND SYSTEM FOR PROVIDING BUFFER  
MANAGEMENT IN A PERFORMANCE ENHANCING  
PROXY ARCHITECTURE

ABSTRACT OF THE DISCLOSURE

[187] A network apparatus for providing performance enhancements of a communication network is disclosed. The network apparatus includes a plurality of communication interfaces that are configured to receive and to forward messages according to a prescribed protocol. The network apparatus also includes a plurality of modules configured to process the messages to effect performance enhancing functions. Further, the network apparatus includes a plurality of buffers that are configured to store the received messages and messages that are generated by one of the plurality of modules. A portion of the plurality of buffers is shared by the plurality of modules based upon execution of a particular one of the performance enhancing functions. Each of the plurality of buffers has a data structure that includes an expandable header to accommodate different message types. The present invention has particular applicability to a bandwidth constrained system, such as satellite network.

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